- 2. In 1939 (in the Referendum-Initiative that failed to secure an adequate number of signatures, and wherein a new naturopathic organization was named) it was the "Naturopathic Physicians' Association of California" that would have been given the power to grant the certifications; and
- 3. In 1940, in subsection (d) of Section 13 of the proposed statute, as outlined in A. B. 1301, the "Naturopathic Physicians' Association of California" again appears (the phraseology of subsection (d) of Section 12 of S. B. 977 being identical with that in companion bill A. B. 1301).

Text of the provisions as given in the three measures, follows:

1. The 1904 paragraph, as given in *Journal of the American Medical Association*, on page 1707, reads as follows:

Any person who holds an unrevoked certificate issued by the Board of Examiners of the Association of Naturopaths of California, incorporated under the laws of the State of California, August 8, 1904, and who shall be practicing naturopathy prior to the passage of this act, shall be entitled to practice naturopathy in this state, the same as if it had been issued under this act. The Board of Medical Examiners shall endorse said certificate at their first meeting after this act becomes a law, or at any subsequent meeting of the Board, but not later than six months after the passage of this act by signature of its president and secretary and affixing its official seal. Provided, however, that the holder of such certificate has signed his or her name on the back of said certificate and the president and secretary of the Association of Naturopaths of California, have certified over their respective signatures that the holder of said certificate is the rightful owner of same.

From the 1939 referendum-initiative that failed, the following excerpt is taken:

(d) Any person who has been a legal resident of the State of California for one year immediately prior to the effective date of this act who can establish to the satisfaction of the Board by affidavit and/or any further proof required by the Board that he is a resident graduate of a legally chartered school, college, academy or institution of learning teaching a course in natural therapeutics and whose training approximates the naturopathic subjects contained in subdivision (b) of Section 12 of this act and who makes application to the Board within ninety days after this act becomes effective and who shall pass an examination such as the Board may require. The Executive Board of the Naturopathic Physicians' Association of California, as the sponsors of this act, is hereby empowered to act as the committee to investigate the qualifications of all applicants for examination under this subdivision, and shall report their findings to the Board of Examiners. However, the Board shall refuse to examine under this subdivision any applicant whose total number of certified hours of education in legally chartered schools of the healing arts is less than the total number of hours required to qualify him for examination under any other act regulating any system of nonmedical healing in the State of California.

Coming now to the year 1940, in A. B. 1301 and S. B. 977, at the present time before the California Legislature, the phraseology below is found:

(d) Any person who holds an unrevoked certificate issued by the Board of Examiners of the Naturopathic Physicians' Association of California shall be entitled to practice naturopathy in this State the same as if it had been issued under this act. The Board of Naturopathic Examiners appointed under this law shall issue to the holder of said certificate a license to practice naturopathy at their first meeting after this act becomes a law, or at any subsequent meeting of the Board, but not later than six months after this act becomes effective; provided, however, that the holder of such certificate has signed his or her name on the back of said certificate, and the president and secretary of the Naturopathic Physicians' Association of California have certified over their respective signatures that the holder of said certificate is the rightful owner of same.

Comment.—If either A. B. 1301 or S. B. 977 were enacted, the provision noted above, whereby an unknown number of naturopathic practitioners with indeterminate qualifications could automatically receive California licenses to practice (as was the case in 1904, some thirty-seven years ago) is one worthy of the serious attention of all citizens, both lay and medical!

The subject is the more important because S. B. 977, referred to the Senate Committee on Governmental Efficiency on March 28, as amended, was sent out to the Senate floor for consideration. Since that time the measure has not moved forward. However, to be kept in mind is the fact that the bill did get out on the Senate floor. It is, therefore, not without potential menace.

* * *

'Names of Various Societies.—It is not without interest, also, that the naturopathic groups, in different parts of the United States, seem to have found so-called "licensing societies" to be of value in the promotion of their objectives,* as witness:

In Arizona, their licensing group had the name "Examining Board of the American Naturopathic Association, Arizona District";

In California, the "Association of Naturopaths of California";

In North Dakota, the "North Dakota Naturo-pathic Physicians, Inc."; and

In Texas, the "Texas State Naturopathic Association."

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Conclusion.—The conclusion must be drawn that eternal vigilance is necessary by all who believe in high public health and healing-art standards, and who hold that the enactment of undesirable laws in regard thereto should be prevented.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 277.

EDITORIAL COMMENT[†]

MILK-BORNE CARCINOGENIC VIRUS

Seven years' experimental and statistical evidence, tending to prove the existence of a milk-borne carcinogenic "influence" in mice, a catalyst having all of the essential characteristics of an ultramicroscopic virus, is currently summarized by

^{*} See Journal of the American Medical Association, April 12, 1941, page 1707.

^{12, 1941,} page 1707.

† This department of California and Western Medicine presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

Bittner 1 of the Jackson Memorial Laboratory, Bar Harbor, Maine.

The existence of milk-borne immunologic factors has been recognized since the time of Theobald Smith,2 who found that female guinea pigs artificially immunized against diphtheria toxin may transfer an effective amount of diphtheria antitoxin to their offsprings in breast milk. He afterward showed that in cattle an essential normal immunologic factor is transmitted to newborn calves through the first colostrum feeding. Deprived of this initial feeding, most calves die from sapro-phytic infections. Since an initial feeding with normal adult cow serum can be substituted for colostrum, it seemed safe to conclude that passive colostral immunity is due to the transference of humoral antibodies. It is well recognized, however, that certain other types of natural immunity are not thus transferred. Wright, for example. has shown that in mice transference of natural resistance to encephalitis virus is not affected through the breast milk. Susceptible mouse strains, nursed by resistant foster-mothers, do not lose their hereditary susceptibility, nor do inherently resistant strains acquire susceptibility by fosterfeeding.

Discovery of a milk-borne carcinogen "influence" was made in 1933 by the staff members of Jackson Memorial Hospital at Bar Harbor. 4 This laboratory had available several inbred strains of mice with widely different hereditary tendencies to breast tumor. At one end of the susceptibility scale there were certain strains, 95 per cent of whose members developed breast cancer. In contrast there were resistant strains, in which the incidence of breast tumor was as low as 0.5 per cent. Under routine methods of breeding, each strain maintained its inherent carcinoma percentage unchanged from generation to generation. If the routine breeding method was altered, however, the young being placed to the breast of foster-mothers, the young tended to acquire the hereditary percentage of the foster-mothers. Thus, a 94.9 per cent susceptible strain yielded 0.7 per cent susceptible young, as a result of being nursed by 0.5 per cent susceptible foster-mothers. A 0.5 per cent susceptible strain was raised to an 89.8 per cent susceptibility as a result of foster feeding.⁵ There evidently was a milk-borne extra-chromasomal gene or determinant, capable of modifying carcinous heredity. This discovery has been adequately confirmed by later investigators.6

Seven years' study of this milk-borne "influence" has shown that this transfer is not due to a protective antibody in the milk of low-cancer stock, but to an active carcinogenic factor in the milk of high-cancer stock. Statistical evidence suggests that this breast-cancer-producing factor is a catalyst, capable of absorption from the gastrointestinal tract of the nursing young, and of multiplying in the tissues of its new host.5 This hypothetical catalyst is present in the milk of highcancer stock during the entire lactation period. It is also present in the spleen, thymus and mammary gland tissues of such stock. It is further evident from available data that low-breast tumor strains of mice, normally free from this extra-chromosomal determinant, may occasionally "acquire" this synergic carcinogenic factor, with a resultant change to a high-breast-tumor stock.

An impartial pathologist cannot help being struck by the similarity between this hypothetical milkborne extra-chromosomal carcinogenic catalyst and an ultramicroscopic virus. Modern methods of virus research apparently have not yet been applied to this problem. If Bittner has inadvertently proved the existence of a milk-borne carcinogenic virus in mice, it may well be regarded by future historians as the most important basic medical discovery of the present generation.

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Pneumonia Complicating Operations Is Treated Effectively.-Infections of the respiratory tract complicating surgical operations or severe injury should be treated in the same manner as any acute lung infection, Dr. Lewis T. Stoneburner, III, and Dr. Maxwell Finland, Boston, advise in The Journal of the American Medical Association.

Pointing out that the availability of highly potent specific remedies for the treatment of pneumonia, such as serums and sulfapyridine and sulfathiazole has resulted in a sharp drop in the death rate from this disease wherever such remedies have been used extensively, the two physicians declare that "it is probably fair to say that pneumonia occurring after surgical operations or after serious trauma [injury] is usuallly considered by both surgeons and layment to be an unfortunate complication which often results in fatalities when the treatment of the primary condition is otherwise successful."

They report on their findings from 279 cases of pneumococcic pneumonia complicating surgical operations and ninety-two such cases occurring after serious injuries. In all instances the type of pneumonia was ascertained. Modern specific treatment was found by them to be as effective in pneumonia following injuries as in primary cases of the disease and also to be highly effective in cases following operations.

They advise that pneumococcus typing should be done and cultures of sputum or of material from the throat and blood cultures should be taken as soon as a diagnosis of pneumonia is suspected. Treatment with sulfapyridine and sulfathiazole should be instituted, under proper control, as soon as evidence of pneumonia appears. Specific antipneumonococcus serum may be given as it is evident that the drug is not effective or is not properly tolerated.

¹ Bittner, John J.: Proc. Soc. Exp. Biol. and Med., 45:805 Dec.). 1940.

² Smith, Theobald: Jour. Med. Res., 16:359, 1907.

³ Wright, F. Howell: Proc. Soc. Exp. Biol. and Med., 45:871 (Dec.), 1940.

⁴ Staff, Jackson Memorial Laboratory: Science, 78:465, 1933.

⁵ Bittner, John J.: Amer. Jour. Cancer, 39:104 (May), 1940.

⁶ Andervout, H. B., and McEleney, W. J.: Publ. Health Rep., 53:777, 54:1597, 1939. Korteweg, R., and Snell, G. D.: Third Internat. Cancer Congress, 1939.

It is not as a destroyer of property or as a consumer of food but as a health menace that the rat does the greatest